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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/901,430	07/09/2001	Friedhelm Beckmann	2763/207-187	7357

7590

08/06/2003

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13
EXAMINER

FONTAINE, MONICA A

ART UNIT

PAPER NUMBER

1732

DATE MAILED: 08/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/901,430

Applicant(s)

BECKMANN, FRIEDHELM

Examiner

Monica A Fontaine

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) 8 and 9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

This office action is in response to the Amendment filed 23 May 2003.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Patel (U.S. Patent 4,885,121).

Regarding Claim 1, Patel shows that it is known to carry out a method of producing a plastic component (Abstract), which comprises placing a first, high-strength material into a shaping mold (Column 8, lines 31-55); introducing a second material having a lesser strength than the first material into the mold with an injection molding process when the first material has a given amount of residual heat (Column 8, line 66 - Column 9, line 29; Column 11, lines 40-45); and bonding the first and second materials to a composite by utilizing the given amount of residual heat of the first material (Column 11, line 40 - Column 12, line 16).

Regarding Claim 2, Patel shows the process as claimed as discussed above, which comprises incorporating fiber materials in the materials for raising a structural strength of the plastic components (Column 8, lines 56-65).

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Regarding Claim 4, Patel shows the process as claimed as discussed above, which comprises inserting a prefabricated component formed of the first material with a given amount of residual heat, and subsequently bonding the second material to the first material (Column 10, lines 31-38).

Regarding Claim 5, Patel shows the process as claimed as discussed above, which comprises forming the first material as a component formed with ribbing (Figure 1, element 30; Column 5, lines 39-52).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Patel, in view of Bertschi. Patel shows the process as claimed as discussed above, but does not show screening off a region of the mold with a slide. Bertschi shows that it is known to screen off a region of the mold with a slide and molding the first material in the screened-off region, and after pulling the slide and a cooling period, bonding the second material to the first material, while the first material still heat (Column 6, lines 33-42). Bertschi and Patel are combinable because they are concerned with a similar technical field, namely, that of molding multilayer articles. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was

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made to use Bertschi's slide in a mold in Patel's process in order to prevent mixing of two resins in a mold with only separate cavity areas.

Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patel, in view of Hara et al. (U.S. Patent 5,277,865).

Regarding Claim 6, Patel shows the process as claimed as discussed above, but does not show forming a hollow area in the first resin. Hara et al., hereafter "Hara," show that it is known to carry out an injection molding method which comprises forming a first material as a component having a hollow portion (Column 1, line 66 - Column 2, line 11). Hara and Patel are combinable because they are concerned with a similar technical field, namely, that of injection molding operations involving thermoplastic materials. It would have been obvious to one of ordinary skill in the art at the time the invention was made to make Hara's hollow portion in Patel's molding method in order to make Patel's molded article more stiff and lightweight (see Hara, Column 4, lines 48-53).

Regarding Claim 7, Patel shows the process as claimed as discussed above, but does not show injecting an inert gas into the first resin. Hara shows that it is known to carry out a method which comprises forming a hollow portion by injecting an inert gas into the first material when the first material is still in a plastic phase (Column 2, lines 1-9). It would have been obvious to one of ordinary skill in the art at the time the invention was made to inject Hara's gas into Patel's first resin in order to make Patel's molded article more stiff and lightweight (see Hara, Column 4, lines 48-53).

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It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to combine Hara with Patel's method of molding for the reasons given in the above rejections.

Response to Arguments

Applicant's arguments, see Paper No. 12, filed 23 May 2003, with respect to the rejection(s) of claim(s) 1-7 under Gorthala et al. (U.S. Patent 6,007,655) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Patel (U.S. Patent 4,885,121).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents are cited to further show the state of the art with regard to multi-step injection molding processes in general:

U.S. Patent 4,744,741 to Glover et al.

U.S. Patent 6,428,737 to Collette et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monica A Fontaine whose telephone number is 703-305-7239. The examiner can normally be reached on Monday-Friday 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Colaianne can be reached on 703-305-5493. The fax phone numbers for the

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organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9310 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

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August 4, 2003

Michael Colaianni

**MICHAEL COLAIANNI
PRIMARY EXAMINER**